

New insights into “plant memories”

September 21, 2016



A special stretch of ribonucleic acid (RNA) called COOLAIR is revealing its inner structure and function to scientists, displaying a striking resemblance to an RNA molecular machine, territory previously understood to be limited to the cells' protein factory (the 'ribosome') and not a skill set given to mere strings of RNA.

“We are uncovering the nuts and bolts of plant memories,” said Karissa Sanbonmatsu of Los Alamos National Laboratory, lead author on a new article this week in the journal *Cell Reports*.

In the past 5 years or so, material in the cell known as “junk DNA” had actually turned out not to be junk at all. Instead, it was shown to produce RNA molecules that play key roles in the development of organs in the embryo, as well as affecting cancer, brain function and plant biology. And a key area of scientists' exploration has been the epigenetics of how plants know when to flower.

